# STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES

# Office of Conservation and Coastal Lands Honolulu, Hawaii

File No.: SSBN MA-07-04

October 26, 2007

State of Hawaii Board of Land and Natural Resources Honolulu, Hawaii

**REGARDING:** 

Conservation District Use Application for Small-Scale Beach

Nourishment (SSBN)

**APPLICANT:** 

Cirrus, LLC (Patricia Cadiz-project manager)

LANDOWNER:

Cirrus, LLC

LOCATION:

Laulea Cove, Spreckelsville, Maui

TMK:

(2) 3-8-2:072

AREA OF USE:

2,100 sq ft of coastal lands for beach nourishment, 3000 Cubic yards.

**SUBZONE:** 

Resource

#### **BACKGROUND:**

In October, 2000, the BLNR approved a master CDUA for the State Programmatic General Permit (SPGP) for small-scale beach nourishment (SSBN) (Exhibit 1). The board action includes a provision delegating to the Chairperson the authority to issue Category II permits for small-scale beach nourishment projects in Hawaii, subject to the Board's consent to delegate its authority at regular Board meetings.

The SPGP/SSBN is an attempt to make beach nourishment a more viable option to combat beach and coastal erosion. The SPGP/SSBN will streamline and simplify the permitting process for beach nourishment of up to 10,000 cubic yds of sand. The SPGP/SSBN incorporates all the requirements, special conditions, limitations required by all agency stakeholders.

#### PURPOSE OF PROPOSED ACTION:

This is a planned regional beach restoration project. The proposed project is designed to mitigate the effects of coastal erosion fronting the subject property, restore the beach and nearshore area with sand, and to improve lateral access for the general public. As such the applicant is requesting permission to place approved beach quality sand on the public beach for the benefit of all beachgoers including swimmers, recreational canoe paddlers, divers, fisherman, windsurfers, kitesurfers, boogie-boarders, snorkelers and walkers.

This beach has suffered long-term chronic beach erosion as evidenced by the Maui County historical beach erosion rates documentation. The long-term goal of the applicant is to restore the beach to a natural, healthy, sandy beach. The primary cause of beach erosion and sand loss in this bay may be attributed to nearly 100 years of sand mining operations at the Paia Lime Kiln. Sand mining for sugar plantations began in the late 1800s and continued through the early 1970s. Scientists acknowledge that the sand mining could be a contributing factor to annual losses along all of Maui's north shore beaches.

There is also a perpetual movement of sand westward in the summer and eastward in the winter, due to currents and wind. Dry beach and dune sand blows westward due to steady north east tradewinds. The east end of this bay, where this project is located, has been essentially starved of sand for many years.

It is the Department's understanding that extensive care has been taken in designing the project, choosing the location of the sand placement and quality in order to minimize user conflicts and environmental impacts, including impacts on water quality and local flora and fauna including coral reefs.

#### **DESCRIPTION OF PROPOSED ACTION:**

Approved, inland, beach quality sand will be extracted from a commercial sand mining operation in central Maui, and transported by dump trucks to the project site in Spreckelsville. The trucks will ingress and egress through the subject property (TMK (2)-3-8-2:72.) The trucks will dump the material on the beach and a bulldozer will be used to push the material westward along the beach. Sand will be placed only in State jurisdiction. The bulldozer and dump trucks will be prohibited from entering coastal waters and shall not go beyond the mean high water mark.

It is anticipated that about  $1/3^{rd}$  of the proposed sand quantity will placed on the first phase of this project. Then, after the ocean takes some of the material into the nearshore (about 4 to 6 months later), the applicant will undertake phase 2 and so on for a third phase if conditions and permit time allow. Each phase is anticipated to be completed in approximately 2 (two) working days.

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In 2004 the applicant completed an approved 500 yd³ beach nourishment project at this site. Most of the cove is uncolonized hard bottom except for some sand fronting this applicant's property. Adjoining properties have primarily hard bottom with small pockets of sand. Hard bottom is composed of coralline algae and rubble, small and large boulders over clay bottom. The applicant desires to supplemented the small amount of sand that was placed must be to meet their restoration goals for this beach.

The long term goal of this project is to return sand to the eroded beach and to the sand inventory of the nearshore area as well as the depleted bay. The applicant plans that this will be a multi-phase project. The access through the property limits the truck size, so the amount of sand that can be placed in a single day is expected to be limited to 350 to 500 cubic yards. It is planned that the natural wave and tide action will take the placed sand to the near shore as needed by the ocean, thereby leaving opportunity to place more sand on later dates within the approved permit period. It is hoped that conditions will permit about 3 phases approximately equally spaced through the permit year.

An example of beach nourishment and restoration as a long-term, ongoing project has been well demonstrated by the adjoining bay eastward—Sugar Cove, which has added 33,000 tons of sand since November 1995. In notable contrast the average beach width for Laulea bay has decreased 10% between 1960 and 2002 while the average beach width at Sugar Cove for the same period (1960-2002) has increased 37%, according to the University of Hawaii, Coastal Geology Group study.

# Scope of Work

- 1. Beach nourishment area to include approximately 2,100 ft<sup>2</sup> within the sandy beach area fronting the property (Exhibit 2).
- 2. Beach nourishment area to include the 108 foot-long cobble beach fronting the subject property TMK (2) 3-8-2:072.
- 3. Sand fill will be placed landward of the 0-elevation, at a slope of roughly 1V:5H, up to the +6 ft elevation and may extend landward of the shoreline with prior County approval.
- 4. Total sand volume for this project is limited to 3000 cubic yards (cy) to be placed in 3 phases.
- 5. The sand fill may initially fill an area along the beach along the existing escarpment (roughly +8 feet MSL).
- 6. Sand fill is to be placed landward of the 0-elevation (Mean High Water) to minimize impacts to water quality and the marine environment.
- 7. Dune enhancement may also be conducted in the backshore area of the beach along and

landward of the existing escarpment with prior authorization of the County of Maui Planning Department.

### **Environmental Monitoring**

Project monitoring will include the following as outlined in the monitoring plan submitted by the applicant:

- 1. Additional visual and photographic monitoring will be conducted during any advisory-level high surf events within 3 months after completion of project or, if/when a visible plume is discernable.
- 2. If the plume is persistent for more than 10 consecutive days then Turbidity and Total Suspended Solids (TSS) will be sampled daily, both in ambient waters (control site) and in the visible plume until the plume is no longer discernable. Results will be forward to the DLNR and Department of Health, Clean Water Branch daily and included in the after action report.
- 3. Additionally, the size and location of the plume will be described in an accompanying narrative and documented photographically daily, and reported to the DLNR.
- 4. Documentation will be kept to demonstrate how the project activity is in compliance with the State water quality standards and will not have adverse affects on pre-project marine and coastal environments.
- 5. In addition to the required monitoring as described above, a beach profiling program has been initiated by the Applicant.
- 6. In addition to the baseline benthic habitat survey provided in the application, the Applicant plans to cooperate with the DLNR in conducting a follow-up benthic habitat survey as part of the post-project assessment plan.
- 7. The Applicant's SSBN Application provides a baseline narrative from the University of Hawaii Sea Grant Program of the physical and marine bottom biological environment conditions observable in the bay nearby as of April 2004 and again in October, 2007. Follow up documentation is planned by the DLNR to continue as long as the project continues and conditions permit safe entry into the bay.
- 8. A post project report will be completed 90 days after completion of the monitoring program and will be issued to DLNR and CWB and will include project summary, deviation(s) from plan (if any), beach profiles, photos and plume measurements as well as information regarding the effectiveness of the project.

# In accordance with the SPGP/SSBN the following activities are considered for approval:

- 1. The placement of up to 3000 cubic yards of sand for the purposes of restoring and nourishing the beach fronting the subject property. The sand source is subject to final review and approval by the DLNR.
- 2. Construction and installation of appropriate and effective silt containment devices, including settling and retention basins and silt curtains.
- 3. Initiation and mobilization of applicable mechanical equipment, including the use of heavy equipment on the beach to mobilize and shape the imported sand to the designed beach profile.

#### Categories of Activities

This project falls within the scope of a Category II project. Category II projects involve the placement of up to 10,000 cubic yards of sand within the shoreline area.

#### **SUMMARY:**

After reviewing the application, the Department finds that:

- 1. The proposed activities (beach nourishment and dune restoration) are identified land uses within the Resource subzone of the Conservation District, according to Section 13-5-24, Hawaii Administrative Rules (HAR);
- 2. The project is consistent with the purpose of the Conservation District and consistent with the goals and objectives of the Hawaii Coastal Erosion Management Plan (COEMAP) adopted by the Board of Land and Natural Resources in 1999. It is a major goal of COEMAP to promote appropriate erosion control and beach nourishment efforts such as this.

### Categories of Activities

This project falls within the scope of a Category II project. Category II projects involve the placement of more than 500 and up to 10,000 cubic yards of sand within the shoreline area and/or involve pumping offshore sand to the beach.

# Panel of Technical Experts

A special Panel of Technical Experts (PTE) was formed to review Category II applications in order to ensure consistency with the provisions of the SPGP and to maintain a high level of environmental

safeguards. This independent panel currently consists of:

- 1. *Dr. Charles Fletcher*, Coastal Geologist. University of Hawaii, School of Ocean and Earth Science and Technology Department of Geology and Geophysics
- 2. Dr. Mark Merrifield, Oceanographer. University of Hawai'i, School of Ocean and Earth Science and Technology Department of Oceanography
- 3. Tom Smith, Coastal Engineer. U.S. Army Corps of Engineers, Pacific Ocean Division
- 4. Mr. Alan Everson, Marine Biologist. NOAA National Marine Fisheries, Pacific Islands

The panel is currently reviewing the application and will provide comments and recommendations (if any) to OCCL staff.

#### **SUMMARY:**

Following review is provided in summary of the application:

- 1. In conformance with Chapter 343, Hawaii Revised Statutes (HRS), a Draft Environmental Assessment (DEA) was published in the Environmental Notice for the blanket CDUA (ST-3000) on March 8, 2000. The Department of Land and Natural Resources, issued a Finding of no Significant Impact to the Environment (FONSI) on May 18, 2000. The FONSI was published in the June 8, 2000 OEQC, *environmental Notice*.
- 2. A Public Notice is being prepared for publication in the Office of Environmental Quality Control (OEQC) *Environmental Notice*.
- 3. A request for comments for the subject SSBN application was sent to the following agencies and persons Comments received will be reflected in the final terms and conditions:
  - a. Department of Health-Clean Water Branch,
  - b. Army Corps of Engineers
  - c. National Marine Fisheries Service
  - d. Office of Hawaiian Affairs (OHA)
  - e. Maui Co Planning Dept
  - f. Hawaii State Historic Preservation Division
  - g. Hawaii Coastal Zone Management Program
  - h. NOAA (PIRO)
  - i. U.S. Fish and Wildlife Service
  - → Beach Nourishment Panel of Technical Experts.
- 4. Chapter 205A, HRS encompasses most land, water and marine areas of the State. Section 205A-2(a)(9)(C) states that it is a policy of CZM, to "minimize" the construction of public erosion-protection structures seaward of the shoreline. In this case, the erosion

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control structure could be considered to be a beach or a small structure to retain sand. These are more commonly referred to as soft structures. Sand nourishment is the "softest" structure that can be used as shoreline protection.

#### **CONCLUSION:**

Staff has determined that this project is consistent with the purpose of the Conservation District and consistent with the goals and objectives of the Hawaii Coastal Erosion Management Plan (COEMAP) adopted by the Board of Land and Natural Resources in 1999. It is a major goal of COEMAP to promote appropriate erosion control and beach nourishment efforts such as this.

#### **RECOMMENDATION:**

That the Board of Land and Natural Resources consent to allow the Chairperson to review and authorize the proposed beach nourishment permit MA-07-04 pursuant to CDUA (ST-3000).

Respectfully submitted,

Dolan Eversole, Coastal Geologist

Office of Conservation and Coastal Lands

Approved for Submittal:

Laura H. Thielen, Chairperson

BOARD OF LAND AND NATURAL RESOURCES

Exhibits: 1. CDUA St-3000 Board Approval Letter.

Exhibits: 2. Location Map.

# Exhibit 1. October, 2000 Board CDUA Approval



# STATE OF HAWAII DEPARTMENT OF LAND AND NATURAL RESOURCES

PO BOX 621 HONOLULU, HAWAII 96809

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AGUATIC RESQUIÇES
BOATING AND OCEAN REGREATION
CONSERVATION AND
RESOURCES ENFORCEMENT
CONVEYANCES TO WILLIFE
HISTORIC PRESERVATION
LAND GIVISION
STATE PARKS
WATER RESOURCE MANAGEMENT

#### **MEMORANDUM**

TO:

Harry Yada, Acting Administrator

Land Division

FROM:

Gilbert Coloma-Agaran, Chairperson

Board of Land and Natural Resources

SUBJECT:

Board Approval of Conservation District Use Application ST-3000 for

Small Scale Beach Nourishment Projects in Hawaii

This is to inform you that at its November 27, 2000 meeting, the Board of Land and Natural Resources approved the statewide application to permit small-scale beach nourishment projects in the State of Hawaii, and also delegated to the Chairperson the authority to issue Category II permits for small-scale beach nourishment projects in Hawaii, subject to the Board's consent to delegate its authority at regular Board meetings, and subject to the following conditions:

- 1. The Board of Land and Natural Resources hereby delegates to the Chairperson the authority to issue Category I permits for small-scale beach nourishment projects in Hawaii, without board consent to delegate;
- 2. Category II actions shall be published in the Environmental Notice.
- No activity will be authorized under this permit which is likely to adversely affect a Federally listed threatened or endangered species or a species proposed for such designation, or destroy or adversely modify its designated critical habitat;
- 4. No activity authorized by this permit may substantially disrupt the movement of those species of aquatic life indigenous to the area, including those species, which normally migrate through the area;

- 5. No activity will be authorized under this SPGP in properties listed or eligible for listing in the National Register of Historic Places without the written consent of the State Historic Preservation Officer;
- 6. When the Chairperson is notified by the applicant or the public that an individual activity deviates from the scope of an application approved under this permit, or activities are adversely affecting fish or wildlife resources or their harvest, the Chairperson will direct the permittee(s) to undertake corrective measures to address the condition affecting these resources. The permittee(s) must suspend or modify the activity to the extent necessary to mitigate or eliminate the adverse effect;
- 7. When the Chairperson is notified by the U.S. Fish and Wildlife Service, the National Marine Fisheries Service or the State Department of Land and Natural Resources that an individual activity or activities authorized under this permit is adversely affecting fish or wildlife resources or their harvest, the Chairperson will direct the permittee(s) to undertake corrective measures to address the condition affecting these resources. The permittee (s) must suspend or modify the activity to the extent necessary to mitigate or eliminate the adverse effect;
- 8. Applicants must submit written compliance reports to the CLP and CWB, including a final report within two months of completion of a project authorized under this permit. The compliance reports must include, as appropriate, descriptions of the construction activities, discussion(s) of any deviations from the proposed project design and the cause of these deviations, results of environmental monitoring, discussion(s) of any necessary corrective action(s), and photographs documenting the progress of the permitted work;
- 9. On a case-by-case basis the Corps may impose special conditions on projects authorized under this permit, which are deemed necessary to minimize adverse environmental impacts;
- 10. The DLNR in conjunction with the Federal resource agencies will conduct periodic reviews to determine that the continuation of this permit is not contrary to the public interest;
- 11. The length of time required to process each request under this permit will be directly related to the adequacy and completeness of the information submitted by the applicant;

- 12. Abutting landowners shall not be permitted to claim areas artificially nourished with sand under the State's accretion laws for projects authorized under this permit;
- 13. Any work or construction authorized under this permit shall be initiated within six (6) months of the approval of such use, and, unless otherwise authorized, shall be completed within one (1) year of the approval of such use. The applicant shall notify the department in writing when construction activity is initiated and when it is completed;
- 14. To avoid encroachments upon the areas nourished with sand, affected property owners realize that the State may claim that the added sand under existing laws may prevent them from moving the certified shoreline seaward of the present vegetation line until there is substantive evidence that the sand has moved on to other areas. During sand placement, care shall be taken to protect existing dune vegetation and any other existing vegetation along the shoreline. To facilitate any later applications for shoreline certifications, the affected property owners are encouraged to document their present shorelines with photographs or surveys;
- 15. Where any interference, nuisance, or harm may be caused, or hazard established by the activities authorized under this permit, the applicant shall be required to take measures to minimize or eliminate the interference, nuisance, harm or hazard;
- 16. For projects authorized under this permit, the applicant shall take measures to ensure that the public is adequately informed of the project work once it is initiated and the need to avoid the project area during the nourishment operation, and for several days following the completion of the nourishment operation to allow potential bacteria levels to decrease;
- 17. No contamination of the marine environment (trash or debris disposal) shall result from project-related activities authorized under thins permit;
- 18. In the event there is any petroleum spill on the sand, the operator shall promptly remove the contaminated sand from the beach;
- 19. For projects authorized under this permit, the applicant, its successors and assigns, shall indemnify and hold the State of Hawaii harmless from and against any loss, liability, claim, or demand for property damage, personal injury, and death arising out of any-act or omission of the applicant, its successors, assigns, officers, employees, contractors, and agents under projects authorized under this permit;

- 20. The Department of Land and Natural Resources reserves the right to impose additional terms and conditions on projects authorized under this permit, if it deems them necessary;
- 21. The applicant shall comply with all applicable statutes, ordinances, rules, and regulations of the federal, state, and county governments for projects authorized under this permit;
- 22. The applicant shall implement standard Best Management Practices (BMPs), including the ability to contain and clean-up fuel; fluid or oil spills immediately for projects authorized under this permit. Equipment must not be refueled in the shoreline area;
- 23. All conditions imposed under the U.S. Army Corps of Engineers State Program General Permit for this effort are hereby incorporated into this statewide Conservation District Use Application;
- 24. If retention structures are used for projects authorized under this permit, they shall be removed within 30 days of written notification of the Department of Land and Natural Resources, at the applicant's own cost, if the structures do not improve the situation (slow or reverse erosion) or if the structures cause unanticipated impacts in the area;
- 25. In the unlikely event that historic sites, including human burials are uncovered during routine construction activities for projects authorized under this permit, all work in the vicinity must stop and the State Historic Preservation Division must be contacted at 692-8015;
- 26. Coastal Lands Program staff will develop a new application form to facilitate the application process for projects authorized under this permit;
- 27. Coastal Lands Program staff will provide a list of projects approved by the Chairperson to the Board on an annual basis;
- 28. All Special Conditions imposed by the Honolulu District Engineer on the State Program General Permit are hereby incorporated into projects authorized under this permit;
- 29. The application process shall include a requirement that the applicant notify all abutting property owners and community organization that may be affected by the proposed action. In addition, each of the property owners and community organizations shall be notified of the time, date,

and place that the Board will review the proposed application;

- 30. The processing fee for Category II permits shall be \$250.00;
- 31. Other terms and conditions as prescribed by the Chairperson; and
- 32. Failure on the part of applicants to comply with any conditions imposed on projects authorized under this permit shall render the permit null and void.

cc: Board Members Land Agents
DAR/BD/DOCARE
County Planning Departments
OHA/DOHIU.S.
Fish and Wildlife Service/NMFS/Corps

